U.S. FISH AND WILDLIFE SERVICE - SPOTLIGHT SPECIES ACTION PLAN

Common Name: White Bluffs bladderpod

Scientific Name: *Physaria tuplashensis*

Lead Region: Region 1

Lead Field Office: Eastern Washington Field Office

Species Information:

Background: White Bluffs bladderpod (*Physaria tuplashensis*) is a low-growing, herbaceaous, short-lived, perennial. The species is known from a single population that occurs primarily in a 10.6 mile narrow band on near-vertical exposures of cemented, highly alkaline, calcium carbonate paleosol (a "caliche" soil) along the upper edge of the White Bluffs of the Columbia River, Franklin County, Washington.

Status: Candidate (Petitioned for Listing May 11, 2004)

Recovery Priority Number or Listing Priority Number: 8

Recovery Plan or Candidate Assessment Form: Species Assessment and Listing Priority Assignment Form completed for the CNOR in April 2009.

Most Recent 5-year Review: N/A

Other: N/A

Threats: The primary threat to the species is mass-failure landslides caused by groundwater movement from adjacent, up-slope agricultural activities and induced by water-seepage. Other threats to the species include: physical damage to plants and soil from off-road vehicle (ORV) use, invasive non-native plants, small population size, and potential effects to pollinators of the species from pesticide use on adjacent agricultural land. Wildland fire is a potential threat to the species, though not much is known about fire effects to this species. Climate change effects to the species are unknown, but could be a potential threat to the population.

Target: Species status improved by reducing/managing the threats to the population, as well as potentially increasing population numbers with seed collection and outplanting efforts.

Measure: We will increase the protected acreage of the population by 59.2 acres with the fencing action. We will also achieve species status improvements by working with partners to reduce threats associated with adjacent agricultural activities, habitat degradation due to ORV use and invasive species, and small population size.

Actions:

1. Work with adjacent landowners to restore, manage and reduce threats to the population.
2. Fence the central portion of the species' habitat to eliminate ORV use in that area. This portion would encompass 23.8 percent of the total species population. This includes the removal of interior fencing that is no longer effective and posting of signs.
3. Invasive species study and potential eradication.

4. Seed collection for propagation, banking, and reintroduction (includes selection of native plant nursery for propagation, identifying suitable habitat for reintroduction sites, and implementation of augmentation and reintroduction projects.

5. Pollinator species study. Identify pollinators and determine their habitat needs, as well as study the effects to the species' pollinators from pesticide use on adjacent agricultural land.

6. Study the effects of wildfire on the plant and its habitat.

7. Study effects of climate change on the plant.

Action	Threat(s) Addressed	Responsible Party	Estimated Cost ($)
Investigate opportunities to work with landowners using Farm Bill	Landslides caused by groundwater movement from adjacent, up-slope agricultural activities, and pesticide use adjacent to population	USFWS [1]	$10,000
Fence a portion of species habitat to eliminate ORV use	ORV use and habitat and plant damage	USFWS	$131,150
Invasive species study	Invasive species	USFWS, WNHP[2]	$150,000
1. Eradication of yellow star thistle in current and potential habitat (high priority)	Invasive species – yellow star thistle	USFWS, WNHP	$10,000/yr
2. Eradication of other invasive species in current and potential habitat (lower priority)	Invasive species – cheat grass and other invasives	USFWS, WNHP	$100,000/yr
Seed collection for propagation, banking and reintroduction	Small population size	USFWS, Rare care, WNHP	$5,000
Identify suitable habitat for reintroduction sites	Small population size	WNHP	$11,000

Implement augmentation and reintroduction projects	Small population size	USFWS, Rare Care	$70,000
Pollinator species study	Small population size and effects from pesticide use on adjoining agricultural lands	USFWS, WNHP	$40,000
Study on wildland fire effects	Wildland fire	USFWS	$25,000
Study on climate change effects to species	Climate change	USFWS	$50,000

[1] U.S. Fish and Wildlife Service
[2] Washington Natural Heritage Program

Identify responsible parties for the actions: USFWS (EasternWashingon Field Office and Mid-Columbia National Wildlife Refuge Complex), WNHP, and Rare Care, private landowners (potentially).

Estimated costs of the actions: See tentative costs listed above in the Actions section.

Role of other agencies: Other Federal, state and local agencies, and private conservation organizations are critical to implementing the conservation and research actions desired to help with the conservation of the White Bluffs bladderpod. Some of these agencies and organizations have been involved in the development of the candidate conservation agreement and have been actively managing habitat and monitoring the population. Future investigation should reach out to U. S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) to see if Farm Bill programs may be able to fund some future actions on private lands to manage or mitigate the excess irrigation water from neighboring agricultural lands.

Role of other ESA programs: Section 6 provides funding to the WNHP for research and monitoring.

Role of other FWS programs: The Partners for Fish and Wildlife program works with private landowners and may be helpful in working with private landowners adjacent to, and including the *P. tuplashensis* habitat. The Recovery Program provides a potential source of funds for projects that will implement conservation actions which will help preclude the need to list this species in the future. The Mid-Columbia River National Wildlife Refuge Complex manages the Hanford Reach National Monument area where the White-bluffs bladder-pod occurs. Management of the area has included on-going monitoring, fire protection and invasive species management. Continuing to partner with the refuge staff is critical to conserving this plant population.

Additional funding analysis: Additional funding for White Bluffs bladderpod conservation would allow for additional monitoring of this population and help propagation to increase the current population. These actions are anticipated to improve the species status to the point that listing will be precluded. Additional funding could facilitate research on the potential effects to the species' pollinators from pesticide use on adjoining agricultural land. The U.S. Geological

Survey could potentially be involved with studies on land slumping and effects to the portion of the population affected by this. Funding costs are still being investigated.

Conservation Actions: Estimated Costs – 5 year outlook							
	FY 10	FY 11	FY 12	FY 13	FY 14	Costs	Responsible Parties and Notes
Investigate opportunities to work with landowners using Farm Bill	X	X				$10,000	USFWS
Fence a portion of species habitat to eliminate ORV use	X	X				$131,150	USFWS
Invasive species interactive study	X	X	X	X		$150,000	USFWS, WNHP
Eradication of invasive species in current and potential habitat – yellow star thistle	X	X	X	X	X	$10,000/yr.	USFWS, WNHP
Eradication of invasive species in current and potential habitat – cheat grass and other exotics	X	X	X	X	X	$100,000/yr.	USFWS
Seed collection for propagation, banking and reintroduction	X	X				$5,000	USFWS, Rare Care, native plant nurseries
Identify suitable habitat for reintroduction sites	X	X				$11,000	WNHP
Implement augmentation and reintroduction projects			X	X	X	$70,000	USFWS, Rare Care
Pollinator species study	X	X	X			$40,000	USFWS, WNHP
Study on wildland fire and effects to species	X	X	X	X	X	$25,000	USFWS
Study on climate change effects to species	X	X	X	X	X	$50,000	USFWS